

Notice of Allowability

Application No.

10/579,375

Applicant(s)

RANTALA ET AL.

Examiner

Steven R. Garland

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the papers filed.
2. ☒ The allowed claim(s) is/are 21-40 renumbered respectively 1-20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 3/12/07
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Smith-Hill on 12/11/07.

The application has been amended as follows:

In the claims:

Claim 21, line 1, change "the" to --an--.

Claim 21, line 2, delete "the".

Claim 21, line 4, delete "the".

Claim 21, line 7, (first occurrence) delete "the" .

Claim 21, line 9, delete "the".

Claim 21, line 14, delete "the".

Claim 21, line 19, change "the" to --a--delete "the".

Claim 21, line 22, change "the" to --a--.

Claim 21, line 29, change "the momentary" to --momentary--.

Claim 21, line 32, (first occurrence) delete "the" .

Claim 22, line 1, change "the" to --a--.

Claim 23, line 1, change "the" to --a--.

Claim 23, line 2, delete "the".

Claim 23, line 4, (first occurrence) delete "the" .

Claim 23, line 4, change "the status" to --a status--.

Claim 25, line 1, change "the" to --an--.

Claim 25, line 2, change "the age of the" to --age of a--.

Claim 25, line 3, change "the cell" to --a cell--.

Claim 26, line 1, change "the" to --an--.

Claim 28, line 2, change "the model" to --a model--.

Claim 28, line 3, change "the required" to --required--.

Claim 30, line 3, (first occurrence) delete "the" .

Claim 32, line 1, change "the" to --a--.

Claim 32, line 4, delete "the".

Claim 33, line 1, change "the" to --an--.

Claim 33, line 1, change "22" to --32--.

Claim 33, line 5, change "the" to --a--.

Claim 34, line 1, change "22" to --32--.

Claim 34, line 1, change "in the" to --using a --.

Claim 34, line 3, (second occurrence) delete "the".

Claim 34, line 3, change "the condition" to --a condition--.

Claim 34, line 4, change "the" to --a--.

Claim 35, line 2, delete "the".

Claim 35, line 3, (first occurrence) delete "the".

Claim 35, line 4, (both occurrences) delete "the".

Claim 35, line 5, (both occurrences) delete "the".

Claim 35, line 6, (all three occurrences) delete "the".

Claim 35, line 7, (all three occurrences) delete "the".

Claim 35, line 8, (first occurrence) delete "the".

Claim 35, line 8, change "the cells" to --a cell--.

Claim 37, line 1, delete "the".

Claim 38, line 1, delete "the".

Claim 39, line 1, delete "the".

Claim 39, line 3, delete "www".

Claim 39, line 3, change "the" to --a--.

Claim 39, line 4, delete "said".

Claim 40, line 2, delete "the".

In the specification:

Page 3, delete lines 21-23. (which corresponding to numbered lines 23-25).

Page 6, after line 2, insert -- Brief description of the Drawings--.

Page 6, after line 7, insert --Detailed Description--.

2. The following is an examiner's statement of reasons for allowance: the prior art fails to teach or suggest the claimed combination of a method for controlling the electrolytic process in an electrolytic plant, in which method the process statuses are interpreted on the basis of physical and chemical measurements, and the electrolytic process control

parameters are adjusted in order to prevent and eliminate fault situations, wherein the process and control data collected from the process in a long time span is transformed into mathematical models and inference algorithms, which are recorded in computer memory, calculating by means of the created models and inference algorithms as well as real-time process measurement data, one or several indexes describing the process status, in which case a theoretical cell voltage at a known point of time is defined by means of process measurements and an empirical model, the real cell voltage is measured at said point of time, the difference between the theoretical and real voltages is calculated, and there is formed a trend of the difference, the trend of the difference in the voltages is interpreted by means of a mathematical model, the interpretation of the trend of the difference is transformed, individually for each cell, into a status index describing the momentary status of the process by means of fuzzy and logic inference algorithms, and when one or several of the calculated indexes deviate from the predetermined values, the process control parameters are adjusted for controlling the process.

Rantala et al. WO 03/000960 (cited by applicant) is the closest art of record but fails to teach or suggest the claimed combination set forth above. Tautz 6,235,178; Meghlaoui 6,609,119 and the article by Bergh et al. are all of interest in process control but fail to teach or suggest the claimed combination set forth above. .

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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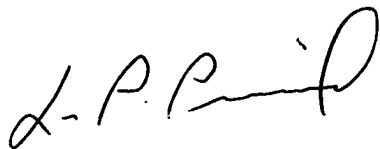
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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven R. Garland whose telephone number is 571-272-3741. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



SRG
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Examiner
Art Unit 2125

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